



This is an official
DHEC Health Update

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10305-DAD-10-16-2013-Vibrio Cholera

Notice to Health Care Providers:

**Non-toxigenic *Vibrio cholerae* cases in South Carolina Linked to Consuming
Uncooked Shellfish**

The South Carolina Department of Health and Environmental Control (DHEC) is requesting heightened surveillance for persons presenting with a history of consumption of raw or undercooked shellfish and symptoms consistent with infection with *Vibrio cholera*: voluminous watery diarrhea, usually without severe cramping or fever, which can progress to severe dehydration, hypokalemia and metabolic acidosis.

Summary

DHEC has been notified of 3 cases of *Vibrio cholera* this week. DHEC is investigating these cases which have been identified from different parts of the State. While the investigation is still ongoing, the three cases have a history of consuming uncooked shellfish. The State Bureau of Labs has confirmed that an isolate received from one of the cases is a non-toxigenic *Vibrio cholera* strain.

Guidance For Clinicians

Background

- Serogroups of non-toxigenic *Vibrio cholera* strains are more common in the United States, they cause less severe illness, categorized as vibriosis, and have no recognized epidemic potential. Risk factors for vibriosis include consumption of raw or undercooked shellfish, particularly raw oysters, and contact with marine or brackish waters.

- Non toxigenic vibriosis must be distinguished from epidemic cholera. Epidemic cholera is not suspected in any of the reported cases. Epidemic cholera is caused by *Vibrio cholerae* serogroup O1 and O139 strains that are toxigenic. Most toxigenic strains are associated with exposure in international settings and are rarely domestically acquired. In epidemic cholera, the source of the contamination is usually the feces of an infected person that contaminates water and/or food.
- If left untreated, severe cases of *Vibrio cholera* infection can lead to dehydration, circulatory collapse, renal failure and death. The elderly, young, and immune compromised individuals as well as those with gastric achlorhydria are particularly susceptible to *Vibrio cholera* infection.

Symptoms

- *Vibrio cholera* infection is characterized by profuse watery diarrhea, vomiting and leg cramps.
- Many people have mild or asymptomatic disease, however severe disease can lead to dehydration and death.
- The incubation period is a few hours to 5 days; typically 2-3 days.

Management

- Rehydration is the cornerstone of treatment for *Vibrio cholera*. Oral rehydration salts and, when necessary, intravenous fluids and electrolytes, if administered in a timely manner and in adequate volumes, will reduce fatalities to well under 1%.
- Antibiotics reduce fluid requirements and duration of illness. Antibiotics are indicated for severe cases, which can be treated with tetracycline, doxycycline, furazolidone, erythromycin, or ciprofloxacin. When possible, antimicrobial susceptibility testing should inform treatment choices.
- Anti-diarrheal medicines are not recommended because they decrease the transit time of the organism through the gastrointestinal tract and prevent flushing of the bacteria out of the body.

Testing

Most laboratories in the USA do not routinely culture for *Vibrio cholera*. Clinicians should request cultures for *Vibrio cholera* for individuals with a history of consumption of raw or undercooked shellfish and a clinically compatible illness.

Providers are requested to submit specimens to the DHEC Bureau of Laboratories. Notify Clinical Microbiology at 803-896-0805 prior to submission of specimens for culture of *Vibrio* to allow for the preparation of special media for culture.

Specimen and Volume: - Submit a walnut-sized portion of feces or 5-10 ml of liquid stool. Place sample in a labeled Cary-Blair medium, which is placed inside the transport tube in Enteric kit.

Storage/Shipping: - Ship specimens in Cary Blair on cold packs to be received in the lab within 48 hours of collection.

Paperwork: Complete a separate DHEC requisition 1335 for each sample including:

- Patient name
- DOB
- Unique Identifying number
- Sender Address
- Collection Date
- Source of specimen (Feces)
- Organism suspected (*Vibrio*)
- Enteric Culture (508)

Reporting of Cases

All suspected and confirmed cases of *Vibrio cholerae* are urgently reportable to DHEC within 24 hours of diagnosis.

Resources for Additional Information

The Centers for Disease Control: <http://www.cdc.gov/ncezid/dfwed/PDFs/nat-covis-surv-overview-508c.pdf>

The Food and Drug Administration:

<http://www.fda.gov/Food/FoodborneIllnessContaminants/CausesOfIllnessBadBugBook/ucm070419.htm>

DHEC contact information for reportable diseases and reporting requirements

Reporting of cholera is consistent with South Carolina Law requiring the reporting of diseases and conditions to your state or local public health department. (State Law # 44-29-10 and Regulation # 61-20) as per the DHEC 2013 List of Reportable Conditions available at:

<http://www.scdhec.gov/health/disease/reportables.htm>

Federal HIPAA legislation allows disclosure of protected health information, without consent of the individual, to public health authorities to collect and receive such information for the purpose of preventing or controlling disease. (HIPAA 45 CFR §164.512).

Regional Public Health Offices – 2013

Mail or call reports to the Epidemiology Office in each Public Health Region.

LOW COUNTRY PUBLIC HEALTH REGION

Berkeley, Charleston, Dorchester
4050 Bridge View Drive, Suite 600
N. Charleston, SC 29405
Phone: (843) 953-0043
Fax: (843) 953-0051
Nights / Weekends: (843) 441-1091

Beaufort, Colleton, Hampton, Jasper
219 S. Lemacks Street
Walterboro, SC 29488
Phone: (843) 549-1516
Fax: (843) 549-6845
Nights / Weekends: (843) 441-1091

Allendale, Bamberg, Calhoun, Orangeburg
PO Box 1126
1550 Carolina Avenue
Orangeburg, SC 29116
Phone: (803) 268-5866
Fax: (843) 549-6845
Nights / Weekends: (843) 441-1091

MIDLANDS PUBLIC HEALTH REGION

Kershaw, Lexington, Newberry, Richland
2000 Hampton Street
Columbia, SC 29204
Phone: (803) 576-2749
Fax: (803) 576-2993
Nights / Weekends: (888) 554-9915

Chester, Fairfield, Lancaster, York
PO Box 817
1833 Pageland Highway
Lancaster, SC 29720
Phone: (803) 286-9948
Fax: (803) 286-5418
Nights / Weekends: (888) 554-9915

Aiken, Barnwell, Edgefield, Saluda
222 Beaufort Street, NE
Aiken, SC 29801
Phone: (803) 642-1618
Fax: (803) 643-8386
Nights / Weekends: (888) 554-9915

PEE DEE PUBLIC HEALTH REGION

Chesterfield, Darlington, Dillon, Florence, Marlboro, Marion
145 E. Cheves Street
Florence, SC 29506
Phone: (843) 661-4830
Fax: (843) 661-4859
Nights / Weekends: (843) 915-8845

Clarendon, Lee, Sumter
PO Box 1628
105 North Magnolia Street
Sumter, SC 29150
Phone: (803) 773-5511
Fax: (803) 775-9941
Nights/Weekends: (843) 915-8845

Georgetown, Horry, Williamsburg
1931 Industrial Park Road
Conway, SC 29526-5482
Phone: (843) 915-8804
Fax: (843) 365-0085
Nights/Weekends: (843) 915-8845

UPSTATE PUBLIC HEALTH REGION

Anderson, Oconee
220 McGee Road
Anderson, SC 29625
Phone: (864) 260-5801
Fax: (864) 260-5623
Nights / Weekends: (866) 298-4442

Abbeville, Greenwood, Laurens, McCormick
1736 S. Main Street
Greenwood, SC 29646
Phone: (864) 227-5947
Fax: (864) 942-3690
Nights / Weekends: (866) 298-4442

Cherokee, Greenville, Pickens
PO Box 2507
200 University Ridge
Greenville, SC 29602-2507
Phone: (864) 372-3133
Fax: (864) 282-4373
Nights / Weekends: (866) 298-4442

UPSTATE PUBLIC HEALTH REGION (continued)

Spartanburg, Union
PO Box 2507
200 University Ridge
Greenville, SC 29602-2507
Phone: (864) 372-3133
Fax: (864) 282-4373
Nights / Weekends: (866) 298-4442

**DHEC Bureau of Disease Control
Division of Acute Disease Epidemiology**
1751 Calhoun Street
Box 101106
Columbia, SC 29211
Phone: (803) 898-0861
Fax: (803) 898-0897
Nights / Weekends: 1-888-847-0902



www.scdhec.gov

Categories of Health Alert messages:

Health Alert	Conveys the highest level of importance; warrants immediate action or attention.
Health Advisory	Provides important information for a specific incident or situation; may not require immediate action.
Health Update	Provides updated information regarding an incident or situation; unlikely to require immediate action.